



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/644,463	08/23/2000	Matthew B. Haycock	884.303US1	2625

21186 7590 01/03/2006

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH  
1600 TCF TOWER  
121 SOUTH EIGHT STREET  
MINNEAPOLIS, MN 55402

EXAMINER
----------

PHAN, RAYMOND NGAN

ART UNIT	PAPER NUMBER
----------	--------------

2111

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/644,463

Applicant(s)

HAYCOCK ET AL.

Examiner

Raymond Phan

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 and 20-27 is/are allowed.
- 6) ☒ Claim(s) 14, 15 and 28 is/are rejected.
- 7) ☒ Claim(s) 16-19, 29 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Part III DETAILED ACTION**

***Notice to Applicant(s)***

1. This action is responsive to the following communications: remarks filed on October 14, 2005.
2. This application has been examined. Claims 1-30 are pending.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 14-15, 28 are rejected under 35 U.S.C. § 102(e) as being anticipated by Mooney et al. (US No. 6,452,428).

In regard to claim 14, Mooney et al disclose wherein the data driver (i.e. driver) having an output impedance control circuit (i.e. slew rate control circuit) to modify an output impedance of the data driver (see col. 2, 3, lines 12-54); and the synchronize circuit (i.e. reference circuit) is configured to alert the second simultaneous bi-directional port that the output of the impedance has been modified (see col. 3, lines 12-29).

In regard to claim 15, Mooney et al. disclose the output impedance control circuit is configured to initialize the output impedance of the data driver (see col. 3,

lines 12-54); and the synchronize circuit (i.e. reference circuit) is configured to alert the second simultaneous bi-directional port that the output of the impedance has been initialized (see col. 3, lines 12-29).

In regard to claim 28, Mooney et al. disclose a method of synchronizing an agent to a bi-directional bus comprising de-asserting a ready signal to drive a transmission line having a second agent driver present thereon to signify the agent not ready to communicate on the bi-directional bus (see col. 3, lines 12-54); asserting the ready signal to signify the agent is ready to communicate on the bi-directional bus (see col. 3, lines 12-54); monitoring the transmission line for an indication that both the agent and the second agent are ready to communicate on the bi-directional bus (see col. 3, lines 12-54).

***Allowable Subject Matter***

5. Claims 1-13, 20-27 are allowable over the prior of records.
6. Claims 16-19, 29-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claims 1, 9, 20, 16, 19-20, 24, 29-30, are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior arts which teach wherein a receiver in the simultaneous biddirecitonal port having input hysteresis, the output node including an input node coupled to the output node of the driver and the input hysteresis having a threshold set such that the initial voltage value does not change an output state of the receiver (claim 1); the driver comprise a pullup transistor having an output impedance, and a

pullup transistor having an output impedance the output impedance of the pullup transistor being greater than the output impedance of the pulldown transistor (claims 9, 19, 29); the receiver includes hysteresis sufficient to allow the receiver to change state only after both the output of the driver and the output node of the second simultaneous bidirectional port circuit are asserted (claims 16, 30); a synchronization circuit to be coupled to the second synchronization circuit on the second integrated circuit, to indicate when the initialization of the simultaneous bidirectional port and an initialization of the second simultaneous bidirectional port is complete (claim 20); wherein output nodes of the first and second data drivers are coupled in common with input nodes of the first and second data receivers, the and the output nodes of the first and second synchronization drivers are coupled in common with input nodes of the first and second synchronization of the receivers (claim 24).

The remaining claims, not specifically mentioned, are allowed for the same rationale as set for their dependency.

### ***Response to Amendment***

8. Applicant's amendment and arguments, see pages 2-12, filed on October 14, 2005, with respect to the rejections of claims 14-15, 28 under 35USC102/103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Mooney et al.

### ***Conclusion***

9. Claims 14-15, 28 are rejected. Claims 16-19, 29-30 are objected. Claims 1-13, 20-27 are allowed.

10. The prior arts made of record and not relied upon are considered pertinent to

applicant's disclosure.

**Patel et al. (US No. 5,296,756)** disclose a self adjusting CMOS transmission line driver.

**Cao et al. (US No. 5,534,812)** disclose a communication between chips having different voltage levels.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (571) 272-3639 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

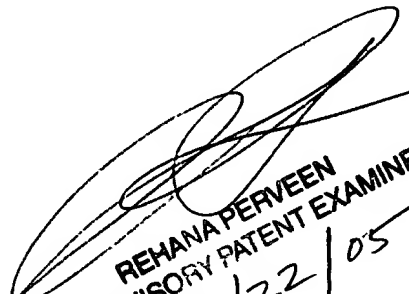
All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see [hop://pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



*Raymond Phan*  
*December 21, 2005*



REHANA PERVEEN  
SUPERVISORY PATENT EXAMINER  
12/22/05